

LESSON PLAN FORMAT

DATE:

SUBJECT:

TOPIC: Waves parameters

CLASS: Form 5

NO. IN CLASS: 23

AVERAGE AGE: 15-16

NO. PRESENT:

LESSON DURATION: 2 periods

PREVIOUS KNOWLEDGE

Kinematics, energy

recall the meaning of speed, frequency, wavelength, period amplitude, phase, and solve problems involving these;

BEHAVIOURAL OBJECTIVES: *at the end of the lesson students will be able to*

Slinky, CRO, Charts on lab wall, two simple pendulum on retorts, Ripple tank with associated apparatus

TEACHING AIDS/ RESOURCES: Waves are transferred from one place to another e.g. most of the energy we use can be traced to the solar energy coming from the sun to the earth. We can use several more immediate examples to establish that waves are a means of movement of energy; sound wave in music, ocean waves and shoreline destruction e.g. tsunami.

INTRODUCTION:

Before we can meaningfully talk about waves as physicists we must know some way of referencing waves from their physical properties. In this class we are firstly going to define some physical properties of waves.

METHOD		
MATTER/CONTENT	TEACHER ACTIVITY	STUDENT ACTIVITY
Speed	Using a slinky send a pulse along the table	Student measures how long it takes for the pulse to travel a certain distance to determine its speed
Frequency and Period	With the use of a signal generator, produce sounds in a speaker of different frequency and show them the trace on the CRO. Define period and frequency and their relationship. This can also be done using the ripple tank.	Student measures period and deduce the frequency for the different pitch waves they see.
Wavelength	Using the ripple tank and the stroboscope the students are shown the shadow below the tank that marks the crests and trough. The wavelength is defined for them in terms of crest and trough.	The students measures the distance using a metre rule to determine the wavelength.
Amplitude	The amplitude of the wave is defined. And they are given access to the ripple tank again.	They measure the value of the amplitude by using a ruler in the water.
Phase	Two pendulums of equal length are set up and they are released so that they swing together. This is defined to the students as being in phase. The pendulum was then released so they are at several conditions of being out of phase to illustrate the contrast.	The student takes notes of these conditions of phase

CLOSURE/ SUMMARY:

A recap is with the definitions and what we did in the class

EVALUATION:

When a more linking concepts are introduced to the students they will get a formal test.

CONTINUATION:**LESSON APPRAISAL (Self)**